

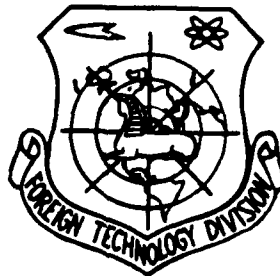
FOREIGN TECHNOLOGY DIVISION

AD-A222 816



SPACE FLIGHT UNDERTAKINGS OF PRESENT-DAY CHINA
(Photo Captions on 65 Selected Pages)

DTIC
SELECTED
JUN 19 1990
S B L
eo



Approved for public release;
Distribution unlimited.



HUMAN TRANSLATION

FTD-ID(RS)T-0250-90 30 April 1990

MICROFICHE NR: FTD-90-C-000459

SPACE FLIGHT UNDERTAKINGS OF PRESENT-DAY CHINA
(Photo Captions on 65 Selected Pages)

English pages: 7

Source: Dang Dai Zhong Guo De Hangtian Shiye,
Zhongguo Shehui Kexue Chubanshe, Beijing,
1986

Country of origin: China
Translated by: Randy Dorsey
Requester: FTD/TTMM/Moorman
Approved for public release; Distribution unlimited.

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification _____	
By _____	
Distribution/ _____	
Availability Codes	
Dist	Avail and/or Special
A-1	

<p>THIS TRANSLATION IS A RENDITION OF THE ORIGINAL FOREIGN TEXT WITHOUT ANY ANALYTICAL OR EDITORIAL COMMENT STATEMENTS OR THEORIES ADVOCATED OR IMPLIED ARE THOSE OF THE SOURCE AND DO NOT NECESSARILY REFLECT THE POSITION OR OPINION OF THE FOREIGN TECHNOLOGY DIVISION</p>	<p>PREPARED BY: A-1</p> <p>TRANSLATION DIVISION FOREIGN TECHNOLOGY DIVISION WPAFB OHIO</p>
---	--

GRAPHICS DISCLAIMER

All figures, graphics, tables, equations, etc. merged into this translation were extracted from the best quality copy available.

SPACE FLIGHT UNDERTAKINGS OF PRESENT-DAY CHINA

Editors in Chief: DENG Liqun, MA Hong, WU Heng

(SELECTED FIGURE CAPTIONS)

P-882392

Fig. 7. Carrier Rocket Research Institute.

P-882393

Fig. 8. Carrier Rocket Research Institute design building

P-882394

Fig. 9. Space Technology Research Institute

P-882395

Fig. 10. Space Technology Research Institute design building

P-856690

Plate 1. Experimental communications satellite.

P-856691

Plate 2. "Long March-3" carrier rocket.

P-856692

Plate 4. "The East Is Red-1" satellite.

P-856647

Plate 5. "Shijian-1" ("Practice-1") satellite.

P-856693

Plate 6. "Shijian-2" ("Practice-2") satellite.

P-856648

Plate 7. Final pre-launch inspection.

P-856695

Plate 8. Experimental communications satellite.

P-856694

Plate 9. Hoisting an experimental communications satellite.

P-856649

Plate 11. Intercontinental rocket awaits flight test.

P-856696

Plate 12. Recoverable-type satellite.

P-856697

Plate 13. Carrier rocket prior to launch.

P-856650
Plate 14. Headed toward the Pacific Ocean.

P-856698
Plate 16. Carrier rocket lifts off to launch recoverable-type satellite.

P-856699
Plate 17. Carrier rocket about to lift off to launch recoverable-type satellite.

P-856651
Plate 19. Long-distance rocket flight test.

P-856652
Plate 20. Carrier rocket breaks the surface in underwater launch

P-856653
Plate 21. Hoisting carrier rocket.

P-856700
Plate 22. "Fengbao-1" ("Windstorm-1") awaits launch.

P-856701
Plate 23. "Shijian-2" ("Practice-2") satellite being checked

P-856654
Plate 25. Underwater-launched carrier rockets await final assembly.

P-856655
Plate 26. Rocket lifts off after ignition.

P-856656
Plate 27. Fitting a recoverable-type satellite

P-856702
Plate 28. Fitting an experimental communications satellite

P-856703
Plate 29. Hoisting an experimental communications satellite.

P-856722
Fig. 27. Schematic diagram of typical liquid-fuel rocket.
KEY: (a) Payload. (b) Third-stage rocket. (c) Second-stage rocket. (d) First-stage rocket. (e) Guidance and control systems. (f) Power systems.

P-882396
Fig. 28. Site of static testing.

P-882397
Fig. 29. Vacuum brazing.

P-856657
Fig. 30. Final assembly shop.

P-856658

Fig. 32. Long-range rocket on launch pad.

P-856659

Fig. 33. Ocean area map for carrier rockets launched from China into the Pacific.

KEY: (a) China. (b) Japan. (c) Midway Is. (U.S.). (d) Guam (U.S.). (e) Philippines. (f) Indonesia. (g) Australia. (h) Splashdown area. (i) Pacific Ocean. (j) Nauru. (k) Kiribati (Tarawa). (m) Solomon Islands. (n) Tuvalu. (p) 7 degrees South Latitude, 171 degrees 33 minutes East Longitude. (q) Western Samoa. (r) New Hebrides (internal self-government). (s) Fiji. (t) Sketch map of the region of South Pacific where the first carrier rocket launched from China is expected to splash down. A carrier rocket will be launched from China to a 70-km diameter circular area in international waters in the South Pacific. The center of the circle is at 7 degrees, 0 minutes South Latitude, 171 degrees, 33 minutes. East Longitude.

P-856660

Fig. 36. Solid-fuel apogee engine.

P-856661

Fig. 37. Solid-fuel engines.

P-856662

Fig. 38. Shaped-charge explosive testing.

P-856663

Fig. 39. Vibration testing of entire rocket.

P-856664

Fig. 40. Rocket undergoing inspection.

P-856665

Fig. 46. YF-2A liquid-fuel rocket engine.

P-856666

Fig. 47. YF-3 liquid-fuel rocket engine.

P-882398 & P-882399

Fig. 48. High-speed hot airstream model separation air-blast testing carried out in a supersonic wind tunnel. a) before separation; b) when separation distance is 1/4 of diameter.

P-882400

Fig. 49. "Long March-1" second-stage rocket undergoes static strength testing.

P-882401 & 882402

Fig. 50. "Long March-1" fairing during fairing jettison testing. a) before fairing jettison test; b) during the process of jettisoning of the fairing.

P-856667

Fig. 51. Titanium alloy spherical air tanks on "Long March-1" second stage rocket.

P-856668
Fig. 52. "Long March-1" rocket final assembly.

P-856669
Fig. 55. "Long March-2" inertial platform.

P-856670
Fig. 57. "Long March-2" stage 1 servomechanisms.

P-856671
Fig. 58. "Long March-2" stage 2 servomechanism.

P-856672
Fig. 59. Stage 1 engines.

P-856673
Fig. 60. Stage 2 engines.

P-856717
Fig. 61. "Fengbao-1" ("Windstorm-1") on launcher.

P-856718
Fig. 65. Hydrogen-oxygen engine.

P-882403
Fig. 69. Structural diagram of "The East Is Red" satellite.

P-882404
Fig. 70. Satellite vibration testing.

P-882405
Fig. 71. Thermovacuum testing.

P-882406
Fig. 72. Centrifugal testing.

P-856704
Plate 36. "Yuanwang" instrumentation ship.

P-856674
Plate 39. Final assembly of rocket engine.

P-856675
Plate 40. Rocket box connection.

P-856705
Plate 42. Illumination testing.

P-856706
Plate 43. Doing vibration testing on a satellite.

P-856707
Plate 44. Performing inspection on satellite before installation of fairing.

P-856676
Plate 46. Carrier rocket final assembly shop.

P-856708
Plate 47. Observation of the satellite.

P-882407
Plate 48. Conducting tests on communications satellite antenna.

P-856709
Plate 51. Testing of operational communications satellite antenna.

P-856677
Plate 61. Inspecting and testing circuits.

P-856710
Plate 63. Recovery of recoverable-type satellite.

P-882408
Plate 65. Thermovacuum testing facility.

P-882409
Fig. 73. Separation shock testing.

P-882410
Fig. 74. Dynamic balance testing.

P-882413
Fig. 78. "Shijian-2" ("Practice-2") scientific experiment satellite.

P-882414
Fig. 79. "Shijian-2" undergoing testing in final assembly shop.

P-882415
Fig. 82. Satellite wrapped with metallic netting about to be placed in thermovacuum container.

P-882416
Fig. 83. Retrorocket engine.

P-882417
Fig. 84. Recoverable-type satellite 2-capsule separation testing.

P-882418
Fig. 85. Measuring the rotational inertia of recoverable-type satellite about [its] vertical axis.

P-856719
Fig. 87. Satellite recovery capsule is recovered in 1976.

P-856720
Fig. 88. Recovery-type satellite being hoisted.

P-882419

Fig. 90. Appearance of experimental communications satellite.

Fig. 91. Appearance of experimental communications satellite (without upper and lower covers).

P-882421

Fig. 92. Experimental communications satellite inside Kr85 leak-checking facility.

P-882422

Fig. 93. Mechanical vibration testing of experimental communications satellite.

P-882423

Fig. 94. Noise testing of experimental communications satellite.

P-882424

Fig. 95. Experimental communications satellite being lowered inside thermovacuum container.

P-856678

Fig. 100. Rocket sitting upright at No. 3 launch site.

P-856679

Fig. 101. Upright long-range rocket on launch pad alongside releasing device.

P-856680

Fig. 103. Air compressor trucks and mobile nitrogen-making equipment.

P-856681

Fig. 106. Public road transporter with erector vehicle employing fully rotating and truss structure.

P-882425

Fig. 118. KM_4 thermovacuum test facility.

P-882426 & P-882427

Fig. 119. Views of two large centrifuges.

P-882428

Fig. 120. Drop-type shock testing platform.

P-856682

Fig. 124. Engine fluid flow testing.

P-856683

Fig. 125. Two-position, multipurpose engine test stand.

P-856684

Fig. 126. Large-size engine test stand.

P-856685

Fig. 127. Hydrogen-oxygen engine test stand.

P-882429
Fig. 130. Krypton-85 high-sensitivity leak checker.

P-856711
Plate 67. Observing a satellite.

P-856712
Plate 69. Installing rocket fairing.

P-882430
Plate 71. Joining rocket boxes.

P-856713
Plate 73. Experimental communications satellite about to be launched.

P-856687
Plate 75. Rocket engine test stand.

P-856714
Plate 77. Carrying out dynamic balance testing on satellite.

P-882431
Plate 80. Conducting tests on rocket boxes.

P-856688
Plate 81. Carrier rockets reviewed while passing through Tien-An-Men square.

P-856689
Plate 83. Inspecting circuits.

P-856715 & P-856716
Plates 84 & 85. Photos of the Earth's surface taken from a satellite.

P-882432
Fig. 149. Vacuum quenching oven.

DISTRIBUTION LIST

DISTRIBUTION DIRECT TO RECIPIENT

<u>ORGANIZATION</u>	<u>MICROFICHE</u>
C509 BALLISTIC RES LAB	1
C510 R&T LABS/AVEADCOM	1
C513 ARRADCOM	1
C535 AVRADCOM/TSARCOM	1
C539 TRASANA	1
Q591 FSIC	4
Q619 MSIC REDSTONE	1
Q008 NTIC	1
E053 HQ USAF/INET	1
E404 AEDC/DOF	1
E408 AFWL	1
E410 AD/IND	1
F429 SD/IND	1
P005 DOE/ISA/DDI	1
P050 CIA/OCR/ADD/SD	2
AFTT/LDE	1
NOIC/OIC-9	1
CCV	1
MIA/PHS	1
LLYL/CODE L-309	1
NASA/NST-44	1
NSA/T513/TDL	2
ASD/FTD/TTIA	1
FSL	1